## REMARKS

Claim Rejections

Claims 1-4, 8, and 12-14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,526,457 to Birze (hereinafter Birze).

Claims 5-7, 9-11, and 15-20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Birze in view of U.S. Patent No. 5,615,400 to Cowsar et al (hereinafter Cowsar).

Applicant has cancelled claims 1-20 without prejudice. Accordingly, the rejection of these claims is not addressed herein.

New Claims

Applicant has added new claims 21-37. These claims are supported by, inter alia, pages 3-7 of the original application. No new matter has been entered.

Claim 21 recites, in part:

> defining first base-classes, wherein each base-class of said first base-classes includes an additional-properties portion for extensibility of the respective base-class;
> defining a second class that inherits from one of said first base-classes, wherein said defining a second class includes defining an additional-property element within said additional-properties portion of said one of said first base-classes;
> instantiating a first object of said second class;
> serializing said first object;
> communicating said serialized first object between first and second systems within said computer network; and
> creating a second object on said second system as an instance of said one of said first base-classes, wherein said creating omits processing said additional-property element of said additional-properties portion within said serialized first object.

Claim 27 recites, in part:

> a first system including first base-class definitions, wherein each base-class definition comprises an additional-properties portion for extensibility of the respective base-class definition; and
>
> a second system including said first base-class definitions and a second class definition that inherits from one of said first base-class definitions and that comprises an additional-property element within said additional-properties portion;
>
> wherein said second system communicates serializations of objects instantiated according to said second class definition to said first system and said first system creates objects as instances of said one of said first base-class definitions by omitting processing of said additional-property element of said additional-properties portion within said serializations.

Claim 32 recites, in part:

> serializing a first object of a first class on a first system, said first class inheriting from a second class that comprises an additional-properties portion, said first class defining an additional-property element within said additional-properties portion;
>
> communicating said serialized first object to a second system that does not comprise a definition of said first class; and
>
> creating a second object on said second system using said serialized first object, said second object being an instance of said second class, said creating omitting processing of said addition property element within said serialized first object.

Serialization refers to the conversion of an object to a data stream of byte values in order to prepare it for transmission and/or storage. Because known serialization mechanisms involve the creation of a byte stream to represent an object, the inheritance of a first class from a second class is not discernable from the byte stream unless the first class is defined on both the sending and receiving systems. Accordingly, "versioning" problems may arise when new classes are defined on a subset of systems within a computer network. *See* application, pages 1-2.

The subject matter of claims 21, 27, and 32 enables such "versioning" problems to be addressed. Specifically, claims 21, 27, and 32 recite "an additional-properties portion" for extensibility. By explicitly defining the additional-properties portion within a base-class, classes inheriting from the base-classes may be defined on a subset of systems without requiring modification of the serialization scheme. Specifically, the additional-property elements may be included within the additional-properties portion. Because the additional-properties portion exists within the base-classes and the inheriting classes, the entire byte stream generated by a serialized object can be recognized and correlated to a base-class even if the data within the additional-properties portion is not recognized.

The applied references do not teach or suggest serializing an object of a class containing an additional-properties portion in the manner recited by claims 21, 27, and 32. Specifically, Birze merely discloses a collection of base-classes having "pure virtual member functions" to abstractly model operating system functions. *See* col. 4, lines 23-25 and col. 5, lines 1-9 of Birze. A virtual member function is a well-known object oriented programming construct. A virtual member function is merely a method (function) interface definition of a class to be implemented by classes inheriting from the abstract base-class. That is, a virtual member function is the "prototype" of the function and the inheriting classes provide the actual code that performs the function. A virtual member function does not explicitly provide space within a class for extensibility via additional-properties or variables that are not defined in the base-class. Moreover, Birze does not teach or suggest serializing an object having an additional-property within an additional-properties portion defined by the object's class.

Cowsar is merely directed to a system that involves a catalog of function sets. *See* Abstract of Cowsar. The catalog of function sets enables a client application to call particular functions even when a library or set of functions is modified. Cowsar is not directed to serializing objects of classes having an additional-properties portion in the manner recited by claims 21, 27, and 32.

Accordingly, the applied references do not teach or suggest each and every limitation of claims 21, 27, and 32. Claims 22-26, 28-31, and 33-37 respectively depend from claims 21, 27, and 32 and, hence, inherit all limitations of their base claim. Therefore, claims 21-37 are submitted to be patentable over the applied references.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-2025, under Order No. 10003696-1 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail, Airbill No. EV482736722US in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: May 28, 2004

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Respectfully submitted,

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